



DAMES & MOORE

A PROFESSIONAL LIMITED PARTNERSHIP

11701 BORMAN DRIVE, SUITE 340, ST. LOUIS, MISSOURI 63146
(314) 993-4599 FAX NO. (314) 993-4895

March 12, 1990

Ms. Mary Ann Croce LaFaire
Community Relations Coordinator
U.S. EPA (5PA-14)
230 South Dearborn Street
Chicago, IL 60604

**RE: NL Industries/Taracorp Site-Comments of
St. Louis Lead Recyclers ("SLLR") to
Draft Feasibility Study and Proposed Plan**

Dear Ms. LaFaire:

We have reviewed the Draft Feasibility Study for the Taracorp Site in Granite City, Illinois, dated August 1989, the Addendum to the Draft Feasibility Study Report, dated January 10, 1990, the U.S. EPA's Proposal Plan for the NL Industries/Taracorp Site, Granite City, Illinois, dated January 10, 1990. SLLR would like to comment on several errors contained in these documents. Our comments are enclosed as Attachment A. Please include these comments in the Administrative Record.

Should you have any questions or require further information, please do not hesitate to contact me.

Very truly yours,

DAMES & MOORE
A Professional Limited Partnership

Neil J. Jost, P.E.
Associate

njj/ket
Enclosure

cc: Steven McAllister, Galena Industries
Jim Stack, Galena Industries
George von Stamwitz, Esq.
Donald J. Harvey, Dames & Moore

EPA Region 5 Records Ctr.



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**ATTACHMENT A**

St. Louis Lead Recyclers
Comments on Documents
Related to NL Industries/
Taracorp Site, Granite City, Illinois

U.S. EPA Proposed Plan

1. Page 2, Paragraph 2, Sentences 1 and 3

Although St. Louis Lead Recyclers (SLLR) leased the building from Trust 454 and begin installing equipment in August, 1980, and accepted limited quantities of waste pile material starting in July 1981 for process development purposes, SLLR did not start full-scale recycling of lead waste from the Taracorp pile until April, 1982; SLLR shut down all operations due to a contractual dispute with Taracorp on March 21, 1983.

2. Page 3, Paragraph 3, Sentences 3 and 4

The volumes and lead content of the piles on Trust 454 property are incorrect. A recent survey conducted for SLLR by SMS Engineers (See Exhibit 1) found that there are 3,640 cubic yards of rubber chips and 416 cubic yards of slag and mattes on Trust 454 property. Samples of the rubber chips, slags, and matte were analyzed for EP Toxic and total metals. In addition, a sample of each material was analyzed for the TCCP list of parameters, reactivity, and corrosivity. The total lead content of the battery chips varied from one percent to four percent. The slag and matte continued from four to fifteen percent and 0.3 to 0.35 percent respectively (see Exhibit 2, Table 1 for a summary of the analytical results). The lead content in these results are an order of magnitude lower than the results reported in the Proposed Plan as well as the RI and FS reports.

3. Page 3, Paragraph 5, Sentences 3 and 5

Same as comment number 2. In addition, the unpaved area is reported as having a surface lead concentration of 9,250 mg/kg. This is a misleading statement implying that the lead content of surface soil throughout the Trust 454 property is 9,250 mg/kg. However, since the soil sample that contained that high concentration was collected near the edge of rubber chip pile 3, it should not be used to reflect the lead content of Trust 454 surface soil as a whole. As our sampling results indicate the lead content of the surface soils on Trust 454 property (SS-1 through SS-4) (See Exhibits 2, Tables 1 and 2) varies from about 1,000 ppm in the southeast corner of the site to 9,540 ppm near the rubber chip pile. In addition, the



found to increase and decrease with depth (See Exhibit 2, Table 3). Four excavations (EX-1 through EX-4) were sampled on Trust 454 property. One of these excavations revealed an 18-inch thick layer of broken battery casing and slag material. Also, the results indicate that although the lead content tends to vary with depth and some increase with depth is observed, it rapidly and uniformly falls to low levels as a clay layer is encountered at about one to two feet depth (See Exhibit 3). This initial increase in lead content could reflect historic waste disposal by previous occupants as the layer of broken battery casings found in EX-1 seems to indicate.

Feasibility Study Report

5. Page 5, Section I.3.3, Paragraph 2, Sentences 2 and 3

See Comment #3.

6. Page 6, Section 1.3.3, Paragraph 1, Sentence 1

See Comment #3.

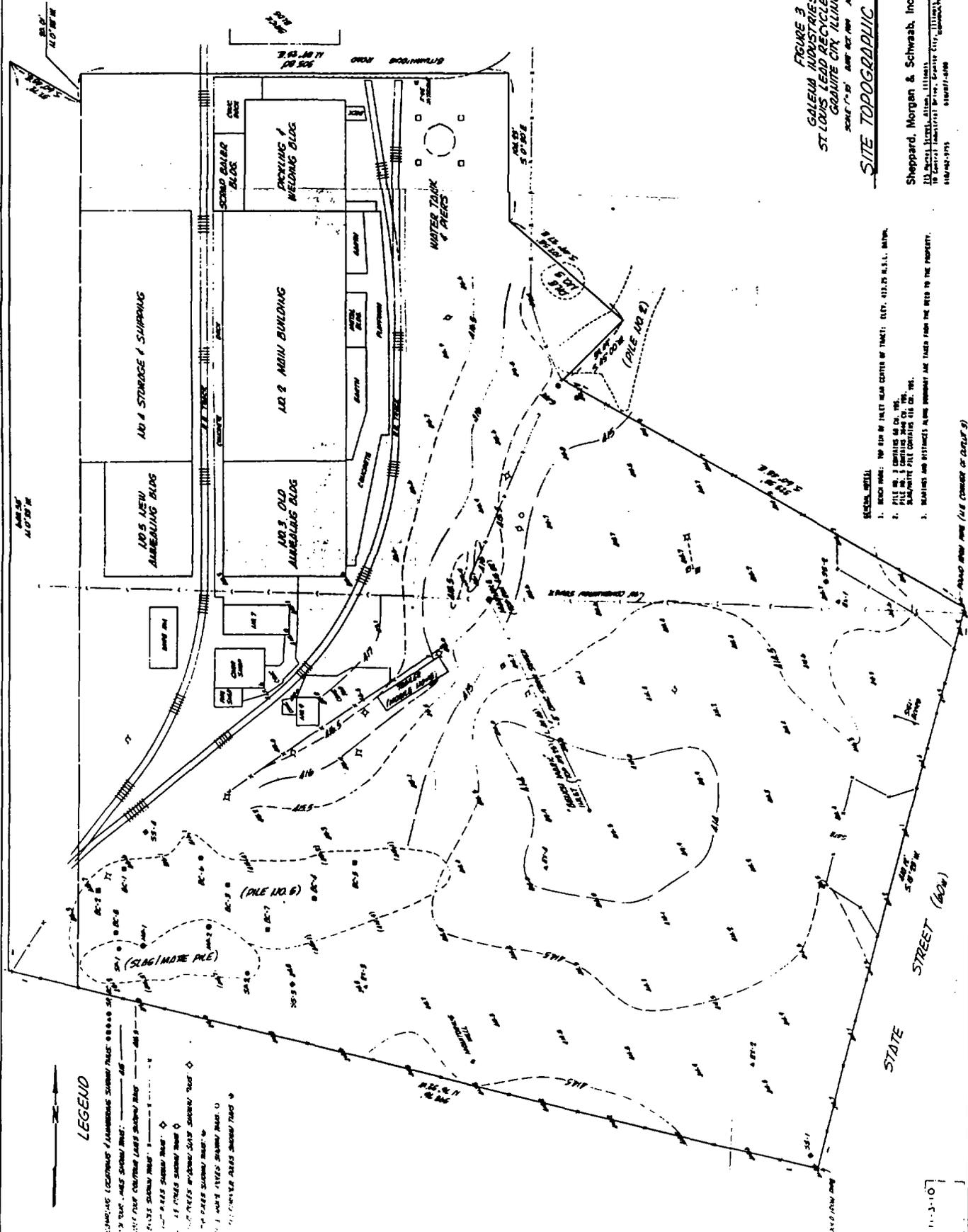
7. Page 6, Section 1.3.3, Paragraph 1, Sentence 4

The Consent Decree signed by IEPA and SLLR required a number of actions by SLLR to control fugitive dust (including paving) upon recommencement of any lead waste recycling activity. SLLR applied asphalt material to the gravel road in compliance with the Consent Decree. However, since SLLR has not recycled any lead waste since March 1983, the asphalt has not been reapplied.

- Exhibit, Page 5-30, Section 5.9, Paragraph 2, Sentence 2

See Comment #2 regarding lead content of the ebonite (rubber chips).

Exhibit 1
Site Topographic Map



LEGEND

- STANDARD BLDG
- ENCLOSING & WELDING BLDG
- SLAG PILE
- PILE NO. 1-100
- RAILROADS
- HIGHWAY
- WATER TOWER & PERS
- CONCRETE AREA SHOWING THIS
- RAILROADS
- HIGHWAY
- WATER TOWER & PERS
- CONCRETE AREA SHOWING THIS

FIGURE 3
GALENA INDUSTRIES, LTD.
ST. LOUIS LEAD RECYCLING SITE
GRANITE CITY, ILLINOIS
 SCALE: 1" = 50' (SEE PLAN FOR DETAILS)
SITE TOPOGRAPHIC MAP

SMS
 Sheppard, Morgan & Schwab, Inc.
 100 SOUTH BROADWAY, SUITE 1100
 GRANITE CITY, ILLINOIS 62040
 (618) 431-1100

- GENERAL NOTES:**
1. ELEVATIONS ARE IN FEET UNLESS OTHERWISE NOTED.
 2. ALL DISTANCES ARE IN FEET UNLESS OTHERWISE NOTED.
 3. DIMENSIONS AND DISTANCES ARE TAKEN FROM THE CENTER OF THE PROPERTY.

Exhibit 2
Summary of Soil and Wastepile Analyses

TABLE 1 (CONTINUED)
WASTE PILE AND SOIL CHARACTERIZATION DATA - INORGANIC ANALYSES (MG/KG)

Parameter	BC-1 (5811)	BC-2 (5812)	BC-3 (5813)	BC-4 (5814)	BC-5 (5815)	BC-6 (5816)	BC-7 (5817)	BC-8 (5818)
Ag	<0.85	1.04	<0.75	0.92	<0.85	<0.85	<0.85	<0.70
As	798.7	398.2	252.3	724.4	250.4	280.4 (33.5)	178.0	143.4
Ba	73.7	189	134	75.8	70.9	66.8	161	88.1
Cd	1.5	1.2	3.1	7.2	1.6	2.4	4.1	2.1
Cr	5.8	8.0	8.2	8.8	10.2	5.6	33.0	7.4
Hg	0.21	0.25	0.38	0.65	3.95	0.22	0.26	0.18
Pb	22,600	10,600	21,900	42,700	24,200	32,100	27,900	14,600
Se	<2.72	2.65	3.13	<1.93	3.30	<2.72	<2.72	<2.22
Ag (EP)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
As (EP)	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Bs (EP)	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.200
Cd (EP)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Cr (EP)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Hg (EP)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Pb (EP)	70.60	49.50	0.942	46.30	28.60	123.00	76.60	27.2
Se (EP)	0.221	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Corrosivity	NR	NR	6.48	NR	NR	NR	NR	NR
Reactivity - CN	NR	NR	NEG	NR	NR	NR	NR	NR

TABLE 1 (CONTINUED)
WASTE PILE CHARACTERIZATION DATA - INORGANIC ANALYSES @ (MG/KG)

Parameter	BC-1 (5811)	BC-2 (5812)	BC-3 (5813)	BC-4 (5814)	BC-5 (5815)	BC-6 (5816)	BC-7 (5817)	BC-8 (5818)
Reactivity -	NR	NR	NEG	NR	NR	NR	NR	NR
Ag (TCLP)	NR	NR	<0.050	NR	NR	NR	NR	NR
As (TCLP)	NR	NR	<0.027	NR	NR	NR	NR	NR
Ba (TCLP)	NR	NR	<0.361	NR	NR	NR	NR	NR
Cd (TCLP)	NR	NR	<0.020	NR	NR	NR	NR	NR
Cr (TCLP)	NR	NR	<0.010	NR	NR	NR	NR	NR
Hg (TCLP)	NR	NR	<0.0002 (<0.0002)	NR	NR	NR	NR	NR
Pb (TCLP)	NR	NR	173	NR	NR	NR	NR	NR
Se (TCLP)	NR	NR	<0.200	NR	NR	NR	NR	NR

TABLE 1 (CONTINUED)
WASTE PILE AND SOIL CHARACTERIZATION DATA - INORGANIC ANALYSES μ (MG/KG)

Parameter	SS-1 (5799)	SS-1 SUB (5800)	SS-2 (5801)	SS-2 SUB (5802)	SS-3 (5803)	SS-3 SUB (5804)	SS-4 (5805)	SS-4 SUB (5806)	MP-1 (5807)	MP-2 (5808)	SP-1 (5809)	SP-2 (5810)
Hg (EP)	<0.0002	<0.0002 (<0.0002)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Pb (EP)	0.412 (0.418)	<0.066	9.150	74.00	2.470	13.40	1.110	1.110	0.449	1.630	1,192.0	378.0
Se (EP)	<0.200 (<0.200)	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Corrosivity	NR	NR	NR	NR	NR	NR	NR	7.00	9.53 (4.50)	9.46	6.75	NR
Reactivity - Cn	NR	NR	NR	NR	NR	NR	NR	NEG	NEG	NR	NEG	NR
Reactivity-S	NR	NR	NR	NR	NR	NR	NR	NEG (NEG)	NEG	NR	NEG	NR
Ag (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.050 (<0.050)	NR	<0.050 0.329	NR
As (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.200 (<0.200)	NR	<0.050 0.329	NR
Ba (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.250 (<0.250)	NR	<0.7746	NR
Cd (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.020 (<0.020)	NR	<0.020	NR
Cr (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.100 (<0.100)	NR	<0.100	NR
Hg (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.0002	NR	<0.0002	NR
Pb (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.100 (<0.100)	NR	980	NR
Se (TCLP)	NR	NR	NR	NR	NR	NR	NR	NR	<0.200 (<0.201)	NR	<0.200	NR

Notes: EP = EP toxicity extraction; TCLP = TCLP extraction. () = duplicate

TABLE 2

ORGANIC RESULTS - WASTE PILE CHARACTERIZATION (TCLP)

<u>Parameter</u>	<u>Sample Concentration (PPB)</u>		
	<u>MP-1</u> <u>(5807)</u>	<u>SP-1</u> <u>(5809)</u>	<u>BC-3</u> <u>(5813)</u>
<u>Herbicides¹</u>			
2,4-Dichlorophoxyacetic Acid (2,4-D)	<0.17	<0.17	<0.17
2,4,5-TP Silver	<0.043	<0.043	<0.043
<u>Pesticides</u>			
Lindane	<0.003	<0.003	<0.003
Endrin	<0.028	<0.028	<0.028
Methoxychlor	<0.153	2.9	<0.153
Toxaphene	<0.357	<0.357	<0.357
Chlordane	<0.071	<0.071	<0.071
Heptachlor	0.025	0.008	0.013
<u>Semi-Volatile Compounds</u>			
Bis(2-chloroethyl)ether	ND	ND	ND
Cresols(and cresylic acid)	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND
Hexachloroethane	ND	ND	ND
Nitrobenzene	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Phenol	ND	ND	ND
Pyridine	ND	ND	ND
2,3,4,6-Tetrachlorophenol	ND	ND	ND
2,4,5-Trichlorophenol	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND

NOTE

¹ Herbicides could not be run using TCLP protocol due to significant interferences. Therefore, herbicide concentrations are reported on EP Toxicity extractions.

ND = Not Detected

TABLE 2
ORGANIC RESULTS - WASTE CHARACTERIZATION (TCLP)
(continued)

<u>Parameter</u>	<u>Sample Concentration (PPB)</u>		
	<u>MP-1</u> <u>(5807)</u>	<u>SP-1</u> <u>(5809)</u>	<u>BC-3</u> <u>(5813)</u>
<u>Volatile Compounds</u>			
Acrylonitrile	ND	ND	ND
Benzene	ND	10.85	ND
Carbon Disulfide	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND
Chlorobenzene	ND	ND	ND
Chloroform	ND	4.21	ND
1,2-Dichloroethane	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND
Isobutanol	ND	ND	ND
Methylene Chloride	12.74	14.93	3.49
Methyl ethyl ketone	ND	ND	ND
1,1,1,2-Tetrachloroethane	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND
Tetrachloroethylene	1.93	5.55	ND
Toluene	25.47	55.94	4.42
1,1,1-Trichloroethane	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND
Trichloroethylene	ND	3.93	ND
Vinyl Chloride	ND	ND	ND

NOTE:

ND = Not Detected

TABLE 3
SUMMARY OF EXCAVATION ANALYTICAL RESULTS

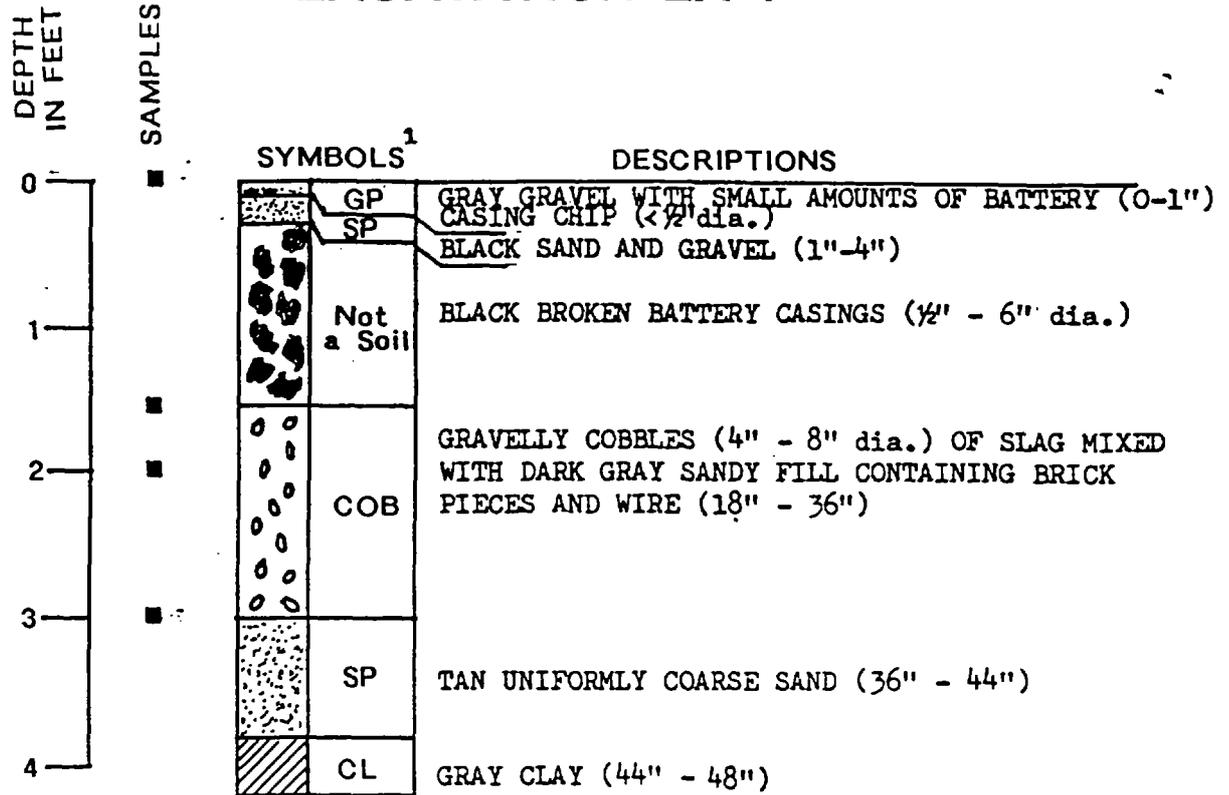
<u>Site Identification</u>	<u>Depth of Sample</u>	<u>Total Lead Concentration (mg/kg)¹</u>
EX1	0"	3,310
EX1	18"	57,400
EX1	24"	701
EX1	36"	1,660
EX2	0"	988
EX2	12"	<11.4
EX2	18"	50.9
EX3	0"	8,880
EX3	12"	15,000
EX3	18"	<17.2
EX4	0"	2,200 (1,750)
EX4	12"	1,220
EX4	18"	11.9

Notes:

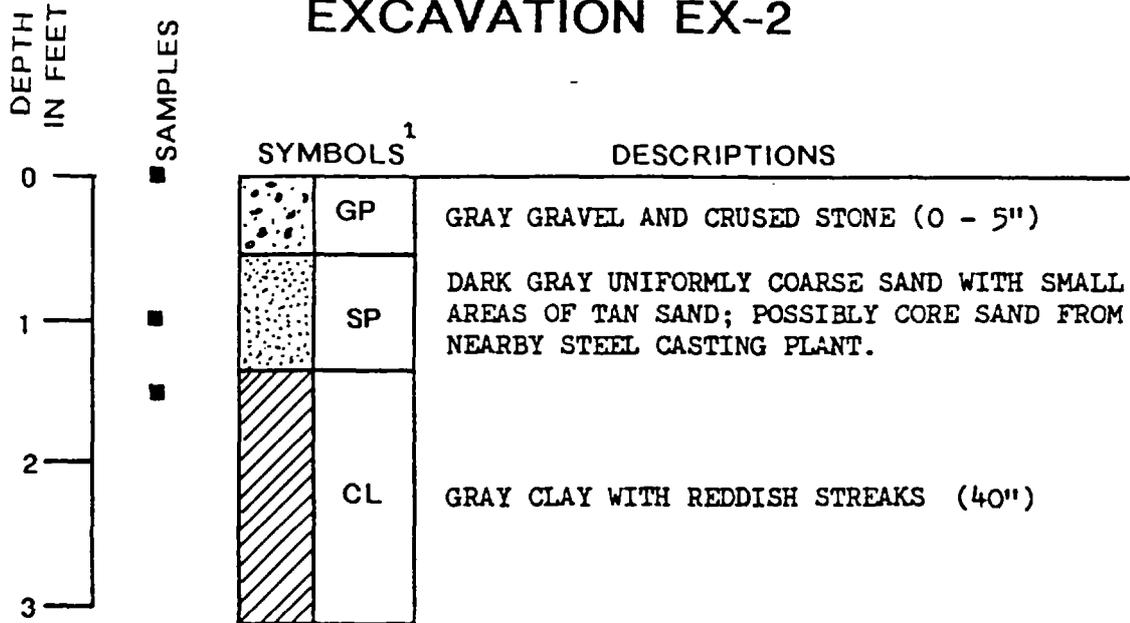
¹mg/kg = ppm
 () = duplicate

Exhibit 3
Excavation Logs

EXCAVATION EX-1



EXCAVATION EX-2



¹ United Soil Classification System

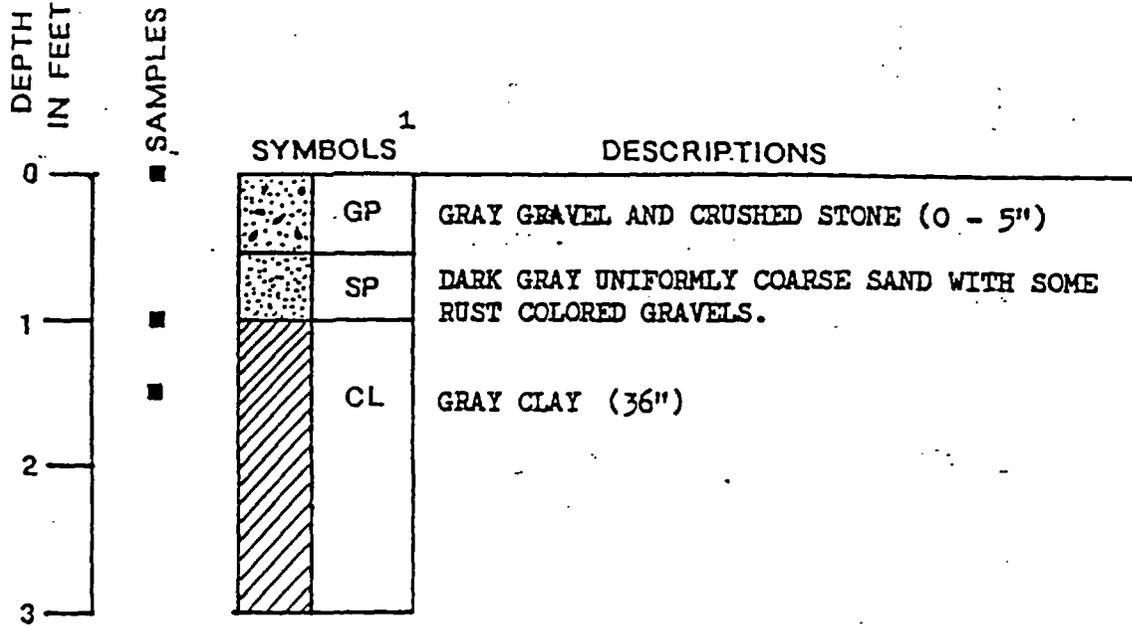
■ Samples collected with clean trowels from face of excavation.

FIGURE 1A

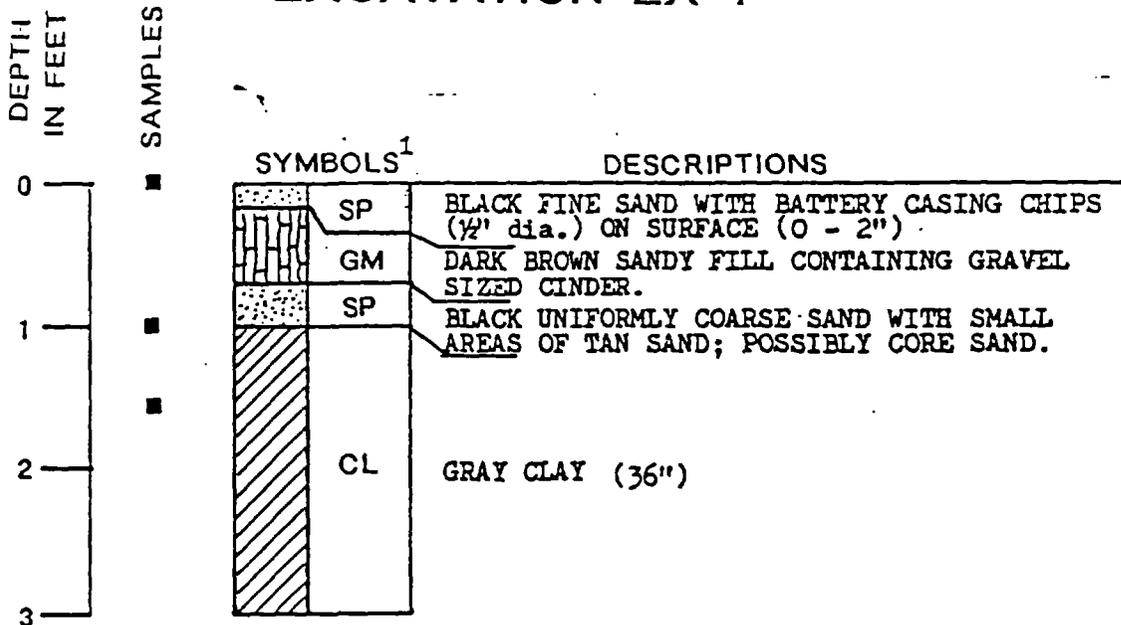
EXCAVATION LOGS

ST. LOUIS LEAD RECYCLERS
Granite City, Illinois

EXCAVATION EX-3



EXCAVATION EX-4



¹ United Soil Classification System

■ Samples collected with clean trowels from face of excavation.

FIGURE 1B

EXCAVATION LOGS

ST. LOUIS LEAD RECYCLERS
Granite City, Illinois